

Abstract Submitted
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Analytical fits for electron impact ionization cross section of atomic species commonly found in material processing plasmas A. SAMOLOV, A. GODUNOV, Department of Physics, Old Dominion University — The field of plasma modeling is in need of reliable electron impact ionization cross sections. This work aims to provide accurate analytical fits for the most common atomic species found in material processing plasmas, such as Argon and halogen elements like Fluorine and Chlorine, etc. The standard BELI formula is revisited but a few other analytical expressions are also suggested, approximating single-ionization cross sections. The preference is given to experimental data up to date covering the whole range in energies.

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